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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Takeshi SUZUKI

Application No.: 10/029,210

Filed: December 28, 2001

Docket No.: 111606

For: PROJECTION OPTICAL SYSTEM AND EXPOSURE APPARATUS WITH THE SAME

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office  
Washington, D. C. 20231

Sir:

Prior to initial examination on the merits, please amend the above-identified application as follows:

IN THE ABSTRACT:

Please replace the current Abstract with the revised Abstract attached hereto.

IN THE SPECIFICATION:

Page 7, line 19 - page 8, line 18, delete current paragraph and insert therefor:

In the projection optical system according to the above-mentioned condition, it is preferable that at least one lens component among lens components formed of the fluorite within the first lens group has a positive refractive power. As described above, with respect to the structure of the first lens group, effects of aberration deterioration due to irradiation fluctuations in the first lens group, such as coma, the difference between the periphery and the center in the projection area, or the like are larger than such effects in other lens groups. In particular, in a positive lens, with respect to an optical path length going through a glass

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